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## CENTRAL URBAN SPACE AS A HYBRID COMMON INFRASTRUCTURE

Ileana Apostol and Panayotis Antoniadis

*In this paper we document and reflect on an ongoing co-design process of a new urban space, by the name L200, located in a very central and precious location in Zurich. L200 has the characteristics of an urban node at the confluence of many networks, a hub like railway stations provide these days but at a different spatial scale, acting as a much needed infrastructure for various commoning activities, among others. L200 is designed as a hybrid space, hosting a DIY digital platform, which is being co-created as a commons itself through a long-term participatory process and provides a building block for an alternative, bottom-up, vision to the “smart city”. In terms of participatory design, we experiment with, and advocate for, a structured laissez-faire methodology that frames both the physical and digital space as interconnected common infrastructures that the members of the association are free to use “as if it was their own” for limited periods of time. This participation through action approach allows for needs, ideas, and interventions to manifest naturally without any pressure or expectations. This means that the corresponding research for producing tools, methodologies, and designs need to advance in a slower than usual pace, and integrate many perspectives that use different languages and have different priorities. This slow design process allows for various forms of peer learning to occur. The paper lays out the overall L200 project in its full complexity through the dual role assumed by the authors, as researchers and activists, highlighting specific decisions, actions, and methodologies that contribute to the on-going research on infrastructuring the commons.*

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**by Ileana Apostol and Panayotis Antoniadis****ABSTRACT**

In this paper we document and reflect on an ongoing co-design process of a new urban space, by the name L200, located in a very central and precious location in Zurich. L200 has the characteristics of an urban node at the confluence of many networks, a hub like railway stations provide these days but at a different spatial scale, acting as a much needed infrastructure for various commoning activities, among others. L200 is designed as a hybrid space, hosting a DIY digital platform, which is being co-created as a commons itself through a long-term participatory process and provides a building block for an alternative, bottom-up, vision to the “smart city”. In terms of participatory design, we experiment with, and

advocate for, a structured *laissez-faire* methodology that frames both the physical and digital space as interconnected common infrastructures that the members of the association are free to use “as if it was their own” for limited periods of time. This *participation through action* approach allows for needs, ideas, and interventions to manifest naturally without any pressure or expectations. This means that the corresponding research for producing tools, methodologies, and designs need to advance in a slower than usual pace, and integrate many perspectives that use different languages and have different priorities. This slow design process allows for various forms of peer learning to occur. The paper lays out the overall L200 project in its full complexity through the dual role assumed by the authors, as researchers and activists, highlighting specific decisions, actions, and methodologies that contribute to the on-going research on infrastructuring the commons.

## INTRODUCTION

L200, <http://langstrasse200.ch/>, is a new collective space in Zurich's city center, initiated and run by an association of citizens without external support. Its design, governance, and implementation have many interesting characteristics for researchers in various disciplines like urban studies, political theory, interdisciplinarity and transdisciplinarity, computer science, Science and Technology Studies, and related specific research fields like the right to the city, Participatory Design, Computer Supported Cooperative Work, digital commons, self-organization, and more.

L200 has the potential to serve as an exemplary showcase of three different ways of bringing together the concepts of commons and infrastructure. First, L200 space is designed and governed as a **common infrastructure**. It is an urban space conceived across both physical and digital domains, whose cost, use, and operation are shared between the members of the L200 association. Second, since its first days of operation L200 has been **infrastructuring the commons**, having become the home of various local initiatives promoting urban commons solutions to key areas like food, housing, sustainability, digital platforms, and more. The space has the potential to provide high visibility to a wider audience and to facilitate exchanges, cooperation, and synergies between initiatives that, although very like minded and prone to networking and working across networks, often stay isolated being kept too busy with their own struggles. Third, L200 is conceived from the beginning as a prototype that is meant to be easily replicated; this is why its name refers to its physical location and not any other "brand". So, L200 is developing a model of a collective central space, through a continuous participatory design process. The question is then not only how to design L200 but how to easily create such places in other locations as well. How to devise a way of **infrastructuring a common infrastructure (L200)**, an easily replicable model of a shared, hybrid, central, and self-organized urban space.

All the above threads follow individual paths with their own temporalities, which cross from time to time, along three main processes that play a key role in the development of the space, and in shaping its identity over time. These threads are governance, community, and peer learning.

The **governance** process is very close to the participatory design of a common infrastructure, a common space, containing the high-level values of sharing and co-existence (e.g., Stavridis, 2016), and the more concrete rules for the everyday management of the space. More specifically, the aim is to follow core commoning principles, being based on fairness, transparency, openness, diversity, and other key values protecting the L200 space and its identity from being dominated by certain actors. L200 space is used by a wide variety of actors, including small shops, neighbourhood associations, individuals, activist groups, start-ups, media organizations, and commoning initiatives in various fields. By claiming their right to centrality (Lefebvre 1991) -to be present and have a voice in the political life of the city- these members associate as a non-profit organization to rent the space at its market price. But they treat it internally as a commons, increasing the density of use and sharing its time-space in creative ways. This sharing strategy not only reduces dramatically the cost for each individual member, but at the same time makes available, again at low individual cost, a pool of resources necessary to run the space successfully and take advantage of its particularly high visibility.

The manifestation of **community** refers to a wider process of building collective awareness, and of co-producing a common identity, agreed upon between the association's members and the wider neighbourhood. The infrastructuring aspect of this process concerns the support of commoning initiatives through 1) the design of physical and digital space in a way to facilitate their activities, 2) the provision of common services like the maintenance of opening hours, the establishment of a wide audience in social media, creative use of the

street windows, etc., 3) the creation of an ecosystem through, for example, regular open gatherings on specific topics like sustainability and digital self-defense, workshops, cooking groups, and more, that allow for synergies between complementary projects but most importantly for contact with a wider population with diverse views and perspectives.

The **peer learning** process is structured through regular gatherings and documentation of design choices, collective activities and experiments. It goes beyond the abstraction of knowledge produced through the governance and community processes, and includes guidelines for the acquisition of places like L200, know-how on financial sustainability without dependencies, communication and marketing strategies, and more. Of course, the guidelines stress that local contexts are of critical importance. The long-term goal is to prototype them as such to be useful across-the-board in order to provide local groups and communities with an entry point on how they can focus on the use value rather than on the exchange value of space, and transform an urban location into a hybrid common infrastructure rented at its market price. That means that the successful application of the prototype does not depend on subsidies, neither from local authorities nor from global digital platforms. This way, it may be easier to scale through replication, and to reach a more mainstream audience, than today's exceptional urban and digital commoning projects.

Note that all these processes regarding the L200 space are still on-going and their starting points and final objectives differ among the actors involved. For some of them, L200 was conceived as a means to fight neighborhood gentrification. Thus L200 would provide an affordable location supporting small local shops and businesses, which are incrementally closed down or assimilated by big commercial players. For others, L200 is part of a wider claim for the right to the city and the right to centrality, providing a central venue with good visibility, for promoting commoning practices as alternatives to

the market and the state. From a global perspective, L200 is seen also as a laboratory for developing sustainable models for addressing the urgent climate crisis, reflected by the high number of initiatives on sustainability, food waste, cooperative housing, active today in L200. Finally, community places that promote social cohesion, conviviality, and collective awareness –a necessary ingredient for a democratic society– are disappearing when are most needed, in times when urban demographics change rapidly and become more and more diverse, while digitization leads to more alienation and polarization. It is not difficult to see that all these narratives and perspectives are actually overlapping and depend on each other.

In this paper we present the perspective of NetHood Zurich, <http://nethood.org>, a transdisciplinary research organization co-founded by the authors, which has contributed during the last six years in research and action around the concept of the right to the hybrid city (Antoniadis and Apostol, 2014) and the organic Internet (Antoniadis, 2018). Using the terminology of participatory design, we argue that a requirement for sustainability is the infrastructuring approach within the hybrid condition of space.

For NetHood, L200 is a building block toward a viable counter-proposal to the “smart city” narrative, in which digital infrastructures and platforms are not landed from above, but are planted from below through face-to-face democratic and participatory processes. NetHood advocates that the so much praised decentralization of the Internet cannot be only at the technical level; free software, self-hosting platforms and federation protocols, blockchain-based systems, and the like, are not enough for that to happen. Democratically digital platforms need to be literally grounded in physical locations, which can host face-to-face participatory practices around the design and governance of the tools mediating the interactions of local communities (Antoniadis, 2016). Instead of a distant facilitator of commoning practices –often too distant, since many “sharing” platforms located typically in Silicon Valley orchestrate collective

processes that take place far away– the digital domain needs to be approached as an integral part of the commoning practice itself, also subject to decision making, governance, and citizen participation in design.

NetHood became a key actor in L200, through a long trajectory of interdisciplinary and transdisciplinary EU projects [1], whose outcomes have led to some of the ideas that influenced the design of L200 and its development as a hybrid space. The experience gained through these projects and the active participation of NetHood in the International Network of Urban Research and Action (INURA) [2] have challenged the researcher’s position of its members, who shifted over time closer to action. Indeed, it is through this role that the authors got involved in different local groups who co-founded L200, and serve today as the general manager and vice-president of the board. [3]

The ability to engage in an action research project without external dependencies [4] is a particularly luxurious situation both for the researcher and activist roles, which allows to experiment with a *structured laissez-faire* methodology of participatory design. This does not pose any constraints on the use of the space, except from a strict rule of non-domination of its identity as explained in Section 3. L200 offers thus a hybrid platform for citizens to express their needs and ideas, not through answering an online questionnaire or raising their hands in a public meeting, but through a direct action of their choice. Then the main role of the researcher(s) in action is to be reflective (refer to Section 5) and to analyze the process informed by different fields and disciplines, toward the generation of knowledge for the infrastructuring of the space itself. As space coordinator, the main role of the activist is to make sure that the members of the association feel the space as their own, free to use it as they wish, through carefully designed tools, rules, and processes, both physical and digital, for supporting the commoning activities that take place on “top” of the common infrastructure, L200’s physical and digital space.

The paper reflects on this dual position of its authors, trying to bring together both dimensions, also in the writing style, combining the theoretical and practical aspects in the narrative. First, we identify three important theoretical concepts, infrastructuring, commoning, and transdisciplinarity explaining how the L200 project contributes to the related research work. We then describe important details and design choices structured around the three ongoing processes identified above, governance, community, and learning.

## KEY THEORETICAL ELEMENTS AND RELATED WORK

L200 being a transdisciplinary project draws inspiration and relates to a wide body of literature from various fields. The authors’ “home” disciplines –urban studies and computer science– meet around the concepts of hybrid, digital and physical, space and the “right to the hybrid city” (Antoniadis & Apostol, 2014), which bring together research on the right to the city (Lefebvre, 1996) and on community networks (Schuler, 1996). In both domains the role of participation in design is central, as well as the “infrastructural” way of thinking, since the attention is brought to the critical importance of the city’s social and digital infrastructures that are mostly owned and operated by big corporations. [5]

### On infrastructuring

Promoting structures and institutions that treat urban infrastructures as a commons, designed and managed through democratic processes, leads naturally to the field of infrastructuring in Participatory Design (Star & Ruhleder, 1996; Star & Bowker, 2002; Karasti, 2014) The authors became familiar with this literature through their interdisciplinary collaborations in the context of the MAZI project (Antoniadis & Apostol, 2018). From the various forms of infrastructuring in Participatory Design analyzed by Karasti (2014), our approach has elements that resonate with the infrastructuring strategies analyzed by Ehn (2008), like design-in-use, DIY toolkits, configuring, design patterns,

protocolling, or LEGO block approach. Such strategies empower the users of technologies to appropriate them along the way, according to their actual needs that might change over time, but also according to the overall environment before the design interventions. The term infrastructure highlights exactly the fact that “Design comes ‘from somewhere’ as opposed to being ‘from nowhere’” (Hakken et al, 2016, p.184).

In this context, the question of scale appears as critical (Lyle et al., 2018) and infrastructuring by itself, as defined in the STS literature, is only part of the solution. The flexibility of a software platform to be later configured and adapted to different situations, for example, need to be combined with the capability to fork (e.g., to copy the code to create variations of it) and replicate (e.g., to self-host), if scale is to be achieved without powerful, even if well-intended, intermediaries (Antoniadis, 2018). This design culture promoting scaling through replication instead of growth resonates with the “Design Global Manufacture Local” concept introduced by Kostakis et al (2015).

Perhaps the most important novelty of our approach compared to action research for infrastructuring in Participatory Design like the Urban Mediator by Botero & Saad-Sulonen (2010) or the Smart Campus by Teli et al. (2015), among many others, is that we bring forward the critical role of the physical urban space, as a host of digital platforms that are built as, and promote the commons. It is not only that physical space is the container of the necessary face-to-face interactions for the collective awareness, deliberation, and decision-making processes that participatory design is based upon. Physical space, mostly when we refer to central locations in the city, is also a very powerful information infrastructure itself, and at present such central locations are more and more dominated by corporate actors.

In a recent attempt to define the term ‘urban living labs’ and establish their characteristics, from related literature and a large sample of sustainable urban

innovation projects in Amsterdam, Steen & van Bueren (2017) note that it refers to “a variety of local experimental projects of a participatory nature. It is often used interchangeably with the terms “testing ground”, “hatchery”, “incubator”, “making space”, “testbed”, “hub”, “city laboratory”, “urban lab”, or “field lab”” (p.22).

In this sense, one could see L200 as an example of a “living lab,” where the space per se becomes subject to design and infrastructuring: its rules and governance, its interior and exterior design, the digital platforms that support its operation, its corporate identity, the content placed on the sidewalk interface like on its windows etc.

Björgvinsson, E. et al. (2012) provide a very interesting case study of “agonistic participatory design” in a network of living labs in Sweden, the Malmö Living Labs (MLL). Interestingly, they bring forward the political dimension and role that living labs can play, promoting agonistic narratives (Kioupiolis, 2019). The notion of public design (e.g., Teli et al., 2015; Bassetti et al., 2019) addressing the “matters of concern” (DiSalvo et al., 2014) and “Design for friction” (Korn & Volda, 2015) are also relevant in this context. Our approach addresses issues of representation, agonism, and matters of concern, which in general require long decision-making and conflict resolution processes, by enabling unmediated access to the L200 space: a common hybrid information infrastructure.

In other words, at L200, we take a step back and simply “design for contact”, before deliberation, conflict or friction. The reason is that in our experience the most challenging task today is to create truly “in-between” spaces, which “might mean creating spaces of encounter between identities instead of spaces characteristic of specific identities.” (Stavridis, 2016, p. 239). In a way we promote a “hybrid community activity”, which “can be accomplished using pre-existing resources that are not tied to any particular research agenda, and the role these can then play in enabling and facilitating thriving local communities.” as Mosconi



et al. (2017) describe the way citizens of Bologna appropriated the Facebook platform to facilitate neighbourhood interactions; what became the Social Street movement. In our case though, the goal is to design both the corresponding physical and digital space as a commons, trying to defend citizens from the manipulative power of global corporate platforms like Facebook (Antoniadis, 2018).

## On commoning

But what means infrastructuring for the commons and as a commons? What type of commoning processes need to be facilitated by design (technological or not) and in what ways? [6] One could say that the well-known commoning principles by Elinor Ostrom (1990) provide already a powerful “infrastructuring” approach toward commoning, offering a flexible framework that could be used as a basis for the self-management of common-pool resources.

Within a vision of sustainability, spatial development may become an ongoing process of co-design supported by urban policies that value and promote diversity. By acknowledging that “the city is where social differences collide and become productive” (Schmid, 2006, p.172), ideally such urban processes will include a multitude of actors, also in partnership with the state or the public sector, who will cooperate to infrastructure the urban commons.

There is a constantly growing literature on the (urban) commons as the third way to engage and emancipate citizens beyond the state and the market (e.g., Ramos, 2016; Borch & Kornberger, 2016; Dellenbaugh et al., 2015). Numerous inspiring projects on housing, energy, digital platforms, around the world are helping to build a knowledge base on best practices, typologies etc. But no matter which is the common resource or process, commoning always requires structuring a process that implies deliberations, participatory practices, negotiations, conflict resolution and reaching consent.

For all these to take place, a common space is required. Open and inclusive spaces are themselves among the most important infrastructures for commoning activities. At the same time, when an urban space is produced and used in common, instruments for cooperation must be devised to enable its operation. It was out of these needs, among others, that the L200 project came into being.

In terms of specifics of shaping spaces as commons, Stavridis (2016) notes that the co-creation process determines the rules about how this sharing is to be performed. Likewise, to keep the space common “there must be developed forms of contestation and agreement about its use and character which explicitly prevent any accumulation of power. Especially, any accumulation of situated, space-bound power” (Stavridis, 2016, p.106). On the emancipatory role of common spaces that may be considered as ‘in-between’, Stavridis [7] makes use of Georg Simmel (1997) dialectical relation between connection and separation. [8]

In this sense, L200 is an exemplary case of a “common space” as defined by Stavridis (2016), certainly only one among many. There are also many examples of urban self-managed spaces, others focusing mostly on culture like Magacin in Belgrade [9] or Pogon in Zagreb (Žuvela, 2018) and in Rojc Community Centre in Pula (Tomašević, 2018); others on politics, like La Casa Invisible in Malaga [10], L’Asilo in Napoli (Cozzolino, 2018) or Navarinou Park in Athens (Stavridis, 2016), and others on sustainability like the R-Urban project in Paris (Petrescu et al., 2016) and Prinzessinnengarten in Berlin (Sobral, 2018). The main difference between L200 and these grassroots initiatives is that many of these spaces are very large (some of them over 2,000 sqm) or they are located in the city outskirts (e.g., R-Urban), and are used without or very small rent, either through a direct collaboration with the City (e.g., a public-civic partnership in the case of Pogon) or through permission (e.g., using the law on Civic use in the case of L’Asilo).

Moreover, none of these initiatives is engaged explicitly with digital sovereignty as an integral part of the space's governance and identity.

In more detail, what makes L200 special compared to other similar collective spaces, is a few important characteristics and key design choices, which are rare to find in such projects, especially when combined all together:

- The space is in a particularly central and visible location in the city. L200 is located at the heart of Zurich, at Langstrasse 200, which is one of the busiest and most diverse streets of the city connecting two central districts (4 and 5) with high quality urban life. It is in close proximity to many active urban nodes including the newly built cultural center Kosmos, the art cinema Riffraff, and the convivial Josefstrasse and Limmatplatz.
- There is no commercial activity (e.g., a bar or restaurant) nor support from external actors (e.g., the municipality), as far as the space itself is concerned. At the same time, individual members are allowed to have activities that are commercial and/or supported by external actors. This means that the successful replication of the prototype does not depend on subsidies, neither from local authorities nor from global digital platforms. This way, it may be easier to scale through replication, and to reach a more mainstream audience.
- Although its surface is rather small, 75 sqm, there is a wide variety of activities with very different needs, even if in the course of a single day, sometimes even in parallel (e.g. a pick-up of local fruits with a live dj session from the neighbourhood's radio station).
- The identity of the space is explicitly defined as neutral, and at least the intention is to be as inclusive as possible through concrete design decisions.
- The space provides a digital platform, a web server (located in the basement) hosting a wide variety of local applications, accessible

only to those that are physically present. It is a "hybrid" space.

Bringing diverse identities together is becoming more and more challenging in times of social media and filter bubbles. Then technology could play a similar role, documenting and representing the identities active in the space in a way that encourages their coexistence celebrating instead of suppressing diversity. It is conceivable that specialized applications could be designed for this purpose like the MAZI toolkit's Guestbook and Interview archive. [11] But there are many challenges with designing and developing new software in the context of limited funded projects, as analyzed in depth for the case of another project in the same framework, Commonfare, <http://pieproject.eu>, (see Lyle et al., 2018; Bassetti et al., 2019).

What is interesting in the case of L200 is that the MAZI toolkit provides already a sound basis for a bottom-up participatory process for developing digital tools for collective awareness and commoning practices, that are more sustainable and democratic (Antoniadis, 2018). This is unlike top-down approaches for creating a smart city "from the Internet up" as in Google's Alphabet Sidewalk project (Doctoroff, 2016) in Toronto, which showcases how the digital and urban struggles are more and more interconnected (Wylie, 2018; Carr and Hesse, 2018). In our view, it is very important to avoid digital platforms that facilitate commoning "from a distance", owned and managed by external actors even if these are local authorities, who, no matter their intentions, gain excessive power over the process.

Digital platforms aiming to facilitate commoning processes in the city and beyond, need to be managed themselves as commons, truly owned, designed, and governed by those concerned — the local communities. This is an ideal scenario, nevertheless, and in reality such commons-based solutions could co-exist with global platforms. Combining the concept of community networks and



FLOSS software, one can imagine the design of digital tools run on community-owned network infrastructures as an infrastructuring process for hybrid urban spaces as a commons (Apostol & Antoniadis, 2014; Antoniadis, 2016; Antoniadis, 2018).

L200 is conceived from its inception as a hybrid space of this type, with a local-only WiFi network used to engage visitors in digital potentially anonymous interactions, file sharing, and more focusing on well supported free software like NextCloud and Etherpad, as part of the MAZI toolkit. In addition, members of the association (rao GmbH and NetHood) are slowly developing free software tools for internal management like an open calendar, bookkeeping, and more, which will eventually become part of the L200 prototype for acquiring and running a central space as a commons. Finally, a small scale web hosting platform is installed in the L200's basement that is intended to be used for hosting web sites of small local artists and businesses etc.

## On transdisciplinarity

At this point, it is important to bring in the concepts of interdisciplinarity and transdisciplinarity. This dimension is often overlooked, in part because of the complexity and the required long-term perspective of such processes, which is typically incompatible with existing funding policies. However, applied research and design work could not be done otherwise than across disciplines, and the necessity for interdisciplinary framings was noted early on, even regarding engineering higher education. For instance, in the mid 1970s at the University of Illinois was designed a program to examine the role of the social sciences and humanities in an engineering curriculum. After being engaged in the program, philosopher of education Hugh Petrie (1976) wrote an article on the epistemology of interdisciplinary inquiry, advocating that "a complex technological society requires interdisciplinary solutions to its problems" (p.30). Transdisciplinarity is a similar concept, but stressing

more the need for researchers working on common "real life" projects to establish methods and tools for communication, beyond the language of their individual disciplines in order to establish a common ground necessary for functioning together toward fulfilling a project's goals.

Urban planning is by nature transdisciplinary, as it is about creating synergies in the co-production of knowledge and in the process of manifesting it in practice. The so called 'wicked problems' (Rittel and Webber 1973) expressing the unique nature of planning problems are necessarily addressed through transdisciplinary research. In this famous article the authors argue that planning problems cannot be completely 'solved' due to the fact that planning practice is about performance and not about absolute value. Also American philosopher Donald Schön (1983) stressed the limitations of the technical-rationality model, and opposed design as rational problem solving.

Coming back to infrastructuring in Participatory Design, the core methodological element of our transdisciplinary approach in the MAZI project [12] was setting the MAZI DIY networking toolkit – a collection of software, hardware, and guidelines – as a "boundary object" between four research teams following different participatory design methodologies (community informatics, participatory design, speculative design, and NetHood's laissez-faire approach) and four community activists participating in different community projects (i.e., a cooperative housing project in Zurich, an urban garden in Berlin, a nomadic group in Greece, and a digital neighbourhood center in London).

The term "boundary" brings to mind an edge or a periphery. However, the term "boundary object" is coined by Susan Leigh Star and James Griesemer (1989) to mean a shared space, a common object "sitting in the middle of a group of actors with divergent viewpoints" (Star, 1990, p.46). These different groups are often referred to as "social worlds" (Strauss, 1978) or "communities of practice"

(Wenger, 1998) and the basic assumption is that “consensus is not necessary for cooperation nor for the successful conduct of work”. To facilitate different groups, social worlds or communities of practice, to collaborate without consensus, a boundary object needs to be characterized by “interpretive flexibility” and allow for a “back-and-forth” process between weakly and strongly structured forms. They should be “both plastic enough to adapt to local needs and constraints of the several parties employing them, yet robust enough to maintain a common identity across sites. They are weakly structured in common use and become strongly structured in individual-site use. These objects may be abstract or concrete.” (Bowker & Star, 1999).

One of the key findings of our pilot project work in MAZI was that the role of the physical space for hosting the local DIY networks was much more important than initially anticipated. The L200 space represents the next step in this on-going collective learning process, in which the space itself, and its management, is being set as the boundary object between the community that runs the space. This boundary object is divided in three strongly interconnected components: a) rules that guide the governance process, b) common services that enable the creation of communities of practice, and c) the guidelines that document the peer learning process over time.

Next we discuss these three processes that correspond to complementary ways in bringing together the concepts of infrastructuring and the commons.

## **L200 AS COMMON INFRASTRUCTURE (GOVERNANCE)**

L200 is an association (the L200 Verein), which by the Swiss Law is a very flexible form of citizen organization. The Swiss Confederation is a direct democracy, through which citizens tend to be more empowered than in a representative democracy. As political engagement is part of the everyday life of

Swiss citizens, this democratic exercise enables a multitude of self-organized expressions of community. A Verein enables its members to act collectively based on a set of principles constituting its establishment. The L200 Verein has an elected board making critical decisions and holding the activities in accordance with the association’s principles. Aside from the board and the general assembly, at L200 there is an elected general manager, and a users’ group that stay in communication to organize the daily space maintenance.

L200 is renting the space from the City of Zurich at its market price, treating it nevertheless as a commons, increasing the density of use and sharing its time-space in creative ways. From the very first days of its operation, L200 became home to the Forum 5im5i association, which is active in support of small shops in Zurich’s Kreis 5 and against the impact of gentrification on neighborhood life, to the NeNa1 cooperative housing project that works toward imagining alternative and sustainable ways of living and working together, Transition Zurich that is active in maintaining a wide network of initiatives promoting sustainable and ecological lifestyles, and NetHood a transdisciplinary research organization developing a wide variety of tools for self-organization at the neighbourhood level. Having started already with the involvement in the infrastructuring process of such a diverse group of actors, which although like-minded had different audiences and methodologies, the general aim for diversity became fast one of the core characteristics of L200’s identity.

This was important both for political and social reasons but also for economic ones, since to be able to pay the very high rent it was necessary that the space is used by many actors, as a common infrastructure. This sharing strategy not only reduces dramatically the cost for each individual member, but at the same time makes available, again at low individual cost, a pool of resources necessary to run the space successfully and take advantage of its particularly high visibility.

There was a moment at the very beginning of the L200 infrastructuring process, which engaged the initial group in a time-intensive decision making. The topic was the inscription of diversity in the expression of the space identity, in the form of a concept-logo. That requires ideational clarity to be concentrated in a diagram. It is important to note that, at the time, it was not obvious for any of us how to communicate synthetically this relatively novel and complex spatial concept.

So we organized the process in three phases. Through a series of informal workshops, some of which took place in a working-type atmosphere and others were more colloquial, we all learned more about each participants' aspirations and understanding of the concept. During the meetings we took notes, creating a pool of ideas and key words that were put up for group selection and further discussion. In the second phase we created on the local network l200.digital a voting poll with the most favorite fourteen key words elicited during conversations, which were best explaining the different perspectives of the space subject to co-design. Out of these, ten representative key words were voted in the L200 concept-logo. The third phase consisted in deliberations regarding the way of expressing them through graphical design. Two years after that, the concept-logo serves best the communication about the L200 space, and it stays on the street windows, as a contracted representation of the initial ideas for this project. When visitors enter the space, however, the first question they ask is: "What is this?" (in the German language: "Was ist das?").



Figure 1. L200 entrance showcasing two explanatory panels including the question "What is this?" (Was ist das?) and the main motto "Also your Space" (Auch Dein Raum)

Then one of the core values and rules of the space's concept came naturally: **no member should dominate, neither the space itself through extensive use nor its overall identity.** In the coordination of uses, enforcing this rule requires sustained effort to make the space as inclusive as possible, open to always new and unexpected uses.

[13] This is exactly the reason why this objective has become a main part of the overall communication strategy, including the choice of a neutral name representing the actual physical location, using "also your place" as the main motto, and placing the question "What is this?" prominently in the space's facade (Figure 1). Failing to keep the space neutral and open to all types of usages would be against its core identity, which is mainly defined by its name and location in the city (i.e., L200 from the address at Langstrasse 200).

Despite this awareness, avoiding the domination of the space's identity over time not only by powerful actors, but also by powerful types of usage (e.g., art, technology, politics, ecology) is a much more difficult task than it seems. We expect that it will be a continuous struggle to keep a balance as some usages become more popular or members try to appropriate the space, intentionally or not. The next step is to express the intended identity to a set of values and corresponding rules, like limits of usage, the price policy for covering the running costs, and other constraints as in any "commoning" process according to Ostrom's principles.

These rules are designed in a way to draw a clear line between the democratic and participatory design of the space as a common infrastructure, and the non-curated usage by the different members, what we call a *structured laissez faire* approach. By structuring accessible and clear rules of sharing the space, less effort will be needed for decision making and conflict resolution for the different usages,

which means in practice that, if there are requests for the use of the space that do not break any existing rules, they are accepted “automatically”. Otherwise they should be submitted to decision making deliberations during the monthly board meetings and/or the yearly general assembly. Access to the space is on a strictly First-Come-First-Serve policy subject to a few standard rules on respect, inclusion etc. Most importantly, after any event or installation, the space has to return to its previous, relatively neutral state.

But still the coordination of such a diverse set of groups and activities becomes a challenging task subject to decision making. In practice this initial set of values and corresponding rules have been defined through quick adaptations over time by the core group, and were presented for approval to the General Assembly, together with situations where rules had to be enforced. [14] For example, a rule was introduced at some point stating that big organizations (e.g., with more than 30 employees, commercial activities, and national or international scope) are not allowed to use the space for co-working, but are welcome for individual events. Also, there are certain limits on the number of events per organization and per type, number of co-workers per organization, maximum duration of presence in one of the space’s street windows.

Our “extreme diversity” approach at L200, enforced through clear rules and constraints, and conflict minimization, might look like avoiding democratic processes and working against engaging in group deliberations. However, one could also see this as an organic process starting from a clean slate where all interested individuals and organizations are given significant freedom to express their needs and views of the space. The accumulation of power may be avoided by providing a permanent structure of “contestation and agreement about its use and character” (Stavridis, 2016, p.106). Then inevitably all these “differences” will meet each other without “commitments” as in Jane Jacobs praising of the sidewalk (refer to Jacobs, 1961).

## L200 AS A SPACE FOR INFRASTRUCTURING THE URBAN COMMONS (COMMUNITY)

Our generic understanding of community is based on Jean-Luc Nancy’s philosophical proposition of the ‘inoperative community’ (1991) [15], precisely ‘being-in-common’ with others, as a pure co-presence of subjects to one another. For its manifestation, for this ideal of community to receive political expression (in the classic interpretation by means of speech and action), it is necessary to have a vision of political life that privileges local face-to-face democracy (refer to Young, 1990, p.232). Based on Nancy’s understanding of community, political theorist Alexandros Kioupkiolis explains such politics in his recent book “The Common and Counter-Hegemonic Politics”:

“...politics should not order the ends of the community; it should not be responsible for the identity and the destiny of the common (Nancy 2010a: 41). Politics should rather afford access to other, not properly political, spheres, which fashion meanings and forms of life in common, seeking indefinite ends-in-themselves: arts, language, thought, science, love. A non-totalising politics should only enable an indefinite multiplicity of creative activities in common, without subsuming their diversity under an all-encompassing figure or an overarching end: ‘politics subsumes none of these registers; it only gives them their space and possibility’”

(Kioupkiolis, 2019, p.16)

Having established a well-defined (simple) interface between the space and its users, and analyzed above, a wide variety of activities can take place without having to allocate unlimited time for discussions, decision-making, and conflict resolution. Every member has access to the space for certain periods of time as if it was their space, given that they respect the same right for all other members. One can get a glimpse of the high level of



diversity of uses achieved over almost two years of operation, by visiting the events page. [16] A small sample is shown in Figure 2.



Figure 2. L200 activities (clockwise): info point, art performance, workshop, and public event

For many of the L200 members, and especially for those promoting urban commoning alternatives to the market, even having an affordable place in the center of the city where they can display their work and engage more citizens in their project is a luxury. Indeed, Zurich showcases a variety of vibrant and well-functioning citizen associations, networks and clubs that experiment with new forms of cooperation for sustainable urban life in relation to food, money, housing, digitalization, and more.

To provide relatively affordable housing, for instance, in the absence of a city's rent control policy self-help citizen associations take in various forms residential buildings out of the market, so they can no longer become an object of commodification and speculation. Among such strategies for sustainability is a pragmatic approach to develop from the grassroots new residential buildings in the cooperative form, and even more, to imagine future visions for urban living (Apostol, 2015). Gentrification and urban renewal put under enormous pressure such places, mostly those centrally located. The existence of spaces for information, negotiation and convergence are of critical importance in particular at the neighborhood level, where the assemblies provide 'the basic unit of democratic participation' (Jacobs, 1961, p.405-427). Bringing in the same location all these

different actors in the city,, together with people that are not necessarily active in this "scene" that promotes an alternative to mainstream is already a step toward the L200 project's vision; there are not many places in the city, hosting such diverse publics.

However, what is even more interesting, and challenging, is to promote (and design for) more substantial interactions and synergies, through common services, public facing platforms, and other dissemination activities, which offer a design space for infrastructuring the urban commons for which the L200 is an ideal living laboratory. At this stage, the core group has decided not to take any initiative from our side and let the different groups develop their own proposals to be further elaborated, and integrated over time.

The R-URBAN project in Paris has largely inspired this organic, with minimum intervention, participatory process. Differences lie in that sustainability and learning processes are among the multiple activities taking place at L200, and that our main venue is a small space in the center of the city rather than a large area in the suburbs like the AgroCité. [17] Nevertheless, the main design principles are very similar. Indeed, Petrescu et al. (2016) describe the various initiated collective spaces under the R-URBAN framework as "places of permanent negotiation, places of learning by doing and bottom-up reconstruction of political fundamentals of democracy: equality of representation, general interest and common good, liberty and responsibility, collective governance, etc [...] open to reconfiguration, introducing in accordance to the involved persons, dynamics of self-management, of responsibility and a sense of initiative and negotiation." In the same spirit, there are many self-organized urban gardens or parks like Prinzessinengarten in Berlin and Buurtcamping in Amsterdam (Commons Network, 2018; Sobral, 2018).

This approach is not only more effective in eliciting information, but somehow creates a "shortcut" to



the need for “agonistic infrastructuring” (Björgvinsson et al., 2012 ) or “public design” (Teli et al., 2015) by first creating a “stage” for all voices to be heard and reinforced, providing for the right to centrality, and leave negotiation and conflict for a later point in time, and perhaps in a different more appropriate space.

In the following we present examples of possible “infrastructures” that could be designed to support commoning activities and projects at L200.

### Public interfaces

Communicating with the general public is a very costly activity that non profit organizations cannot easily sustain over long time periods. In L200 we provide different ways for reducing the cost and increase the impact of such communication. For example, we have established a daily opening hour schedule, for now limited (17:30-19:30 except Sundays) that all the members of the association can contribute to, by representing the whole association when passers by enter to ask for information.

Moreover, the sidewalk interface through the street windows and the facade (see Figure 3) are visible by hundreds if not thousands of people every day. This interface can be rented at a very low cost or used for free during specific events, for promoting campaigns, selling products, displaying the activities that take place in the space over time, as documented in the local network. [18]



Figure 3. The entrance of L200 during a live broadcast by a neighbourhood's local radio station

It is part of our on-going work to create templates for posters and other graphic design material which can help initiatives with very limited resources to produce visualizations of their work with small effort.

### Regular platforms

Another way to widen the audience and potential of a commoning project is to establish a regular appointment in a central location, like L200, which will be easy to access or even to remember. A good example of such a “platform” which can be implemented on “top” of L200 is a new project, 7at7.ch, which aims to bring together experts and the general public around important issues of digital self-defence with special focus on privacy and security. So, every 7th of the month at 7pm, L200 will be hosting a workshop, seminar, info point, or course around digital sovereignty, everytime with different special guests from the collaborating organizations.

Similar platforms are run by other members of L200, like the NeNa1.ch housing and living cooperative, who organizes a regular meeting every 17th of the month, and Transition Zürich that runs a another regular platform on a weekly basis, named “Tuesdays for Future” or in Swiss German “Ziischtig fürd Zuekunft”, with a focus on sustainability.

### Fundraising

Being a member of a space like L200, among a big ecosystem of initiatives, organizations, and businesses, [19] increases significantly the credibility and potential impact of fundraising proposals that include L200 as a laboratory for action research, as a dissemination platform, or as a networking venue.

This means that even if all work for running the L200 space is voluntary, as all income from membership and space rental are calculated to just pay the running costs, the existence of the space itself can

help the sustainability of its members. That is so especially for commoning initiatives that often struggle to find adequate funding to advance their research and action agendas, and to reach a wider audience.

The regular platforms of 7at7.ch and “Tuesdays for Future” described above are good examples of this infrastructuring element. Both were funded exactly because of their intention to use the L200 common space with proven visibility and popularity, for projects whose main objective was the engagement of citizens in learning processes around critical issues in times of increasing threats from Internet giants and climate change respectively.

## INFRASTRUCTURING L200-LIKE SPACES (PEER LEARNING)

We understand infrastructuring as a form of knowledge abstraction into toolkits, patterns, and guidelines that are easy to adapt and configure in different situations than the ones in which knowledge was initially generated (Ehn, 2008). In this sense, the MAZI project was a project for infrastructuring hybrid space production, having a single outcome: a toolkit which included software and hardware for deploying a local WiFi network, and guidelines for community engagement, participatory design, learning, and more. [20] Afterwards the NetHood team stepped into a new applied project at L200, by working within the hybrid condition of space. We entered a new phase of infrastructuring, using the MAZI toolkit as the basis for the production of the digital space of L200, and shifted our attention to issues neglected by the MAZI toolkit.

More specifically, the necessity of associating in the co-design process, local digital networks with physical spaces. At the end of this infrastructuring process we plan to produce a similar toolkit for co-creating spaces like L200, including templates and guidelines for governance rules, sustainability models, marketing strategies, but also software for the back-end operations like calendar, reservations,

accounting, and potential improvements on the MAZI toolkit. Some of these design decisions that could be transformed into a new toolkit were discussed in the previous sections.

For now we highlight a few important aspects of the learning and knowledge production process that are not easy to “infrastructure”. In this context, we need to keep in mind that knowledge is not a finite product, but rather a dynamic multi-view agreed-upon process, which is socially constructed and very sensitive to the specific context produced. We also make the distinction between appropriation and domination, or what the technology might impose, because any “technology introduces a new form into a pre-existing space” (Lefebvre, 1991, p.165). Comparable to the spatial appropriation theorized by Lefebvre (1991), there is a difference in how the knowledge is to be used, between the use value and the exchange-value of conceptual appropriation, and is the use-value structuring the L200 project.

Planning theorist John Friedmann’s (1987) shows that the links between knowledge and action address mostly ‘rational’ practice, as it adheres to formal criteria (e.g., economic efficiency), and implies approval based on presumptive universal validity. But our practical experience highlights how inappropriate is the Cartesian way of thinking for interdisciplinary research on complex systems. When the knowledge is transferred to groups and communities, “the preparedness of the professional culture is of more urgency than the specific technologies themselves” (Banerjee & Chakravorty, 1994, p.77).

Starting from this understanding we have proceeded in the co-production of the L200 space with two attitudes of researchers in action, which led to shaping a space for cooperation. They refer to reflection-in action (Schön 1983) and the role of the stranger (Simmel, 1971) analyzed in the following subsection, complemented with two subsections with a more practical perspective on leadership and design choices.

## The role of researchers: reflection in action and the stranger

Following John Dewey's writings on the reflective practice (Dewey, 1933), by examining what professionals do and how they learn from experience, American philosopher Donald Schön published five decades later a seminal book that coined the term reflection-in-action. [21] That means to be aware of, and reflect upon one's implicit knowledge base (or knowing-in-action). Schön (1987) explains that reflective practitioners respond to surprise through improvisation on the spot: "This reflection-in-action is tacit and spontaneous and often delivered without taking thought, and is not a particularly intellectual activity. And yet it involves making new sense of surprises, turning thought back on itself to think in new ways about phenomena and about how we think about those phenomena. And examples lie in ordinary conversation, making things, fixing things, riding bicycles."

Furthermore, the stranger metaphor inspired by Georg Simmel's (1908) essay on this social type is useful in explaining our own roles in the process. Considering L200's social dimensions, the relationship of the researchers – activists is in a tension, between being either too close or too remote from the communities that engage with the project. A stranger is "an element of the group itself [...] whose membership within the group involves both being outside it and confronting it" (Simmel, 1971, p.144). The dialectical tension inherent in the condition of being a stranger is useful in the sociology of practice, being appropriate for preparing practitioners to accept, decipher, and negotiate differences within the project work, and in heterogeneous contexts in general.

At the same time, the technological dimension of L200, its local network, is meant to have various tangible impacts including strangers' contact. At present there is a tendency of many urbanites to protect their anonymity and autonomy, by avoiding difference and thus interactions with strangers (i.e.,

selective exposure). By proposing to reverse such tendencies, at L200 we seek to develop novel ways for encouraging the exchange of information between strangers that live or are present in physical proximity, without sacrificing their needs for privacy and independence. Our vision of the 'smart city' aiming at the livability of the urban system is supportive of social integration and cultural diversity in cities, potentially extending over time toward mutual respect and conviviality.

In context, incorporating the stranger's perspective in the hybrid spatial research and design practice can bring to local communities additional information that, rather than defining the solution, enables them to build a complex understanding of problems. Note that the motivations and timing of the strangers' intervention matter, and there are also different roles that the researchers – activists and local communities assign to these 'outsiders'. In the process of developing a stranger-like habit in knowledge exchange, researchers, designers or activists have to take into account differences, to learn how to turn information from strangers into data that may be consulted in the future, and also to act reflectively in heterogeneous contexts that these differences generate.

NetHood played the social role of strangers in the MAZI pilot in Zurich as well as in the infrastructuring process at L200. The stranger [22] is at the same time in a state of detachment and attachment to a place, as well as in agreement and belonging to a place, and in confrontation with it, due to an implicit urge toward experiment and innovation.

Over time in the MAZI pilot, in bringing strangers in contact and in communicating within diverse groups, we have shifted between four connecting roles namely a) triangulator, b) facilitator, c) catalyst, and d) curator. There are design elements that through their meaningful, and many times synergetic, presence can establish relationships, through face-to-face interactions and ad-hoc social networking. These elements are what William H. Whyte (1980) called 'triangulators.' [23] We have

enabled triangulation, and we played the role of facilitator of contact, exchanges, debates and interactions between strangers present in physical proximity. The stimulation and acceleration of these exchanges in establishing relationships is helped by playing the role of a catalyst, which is simply an agent that provokes, speeds or quickly causes significant change or action.

The stranger's role is very much emphasised in the L200 project, according to the requirements of the space's neutrality. In comparison with the previous experience in the MAZI pilot, at L200 we perform the role of curator only for the space, but not for the uses of it. The word 'curator' has its origins in the Latin 'curare' that means to give care, and it is at the root of diverse words such as 'cure' or 'accurate', thus a curator is a steward, who takes care of, and at the same time, may strive for an ideal of perfection.

At L200 we perform voluntary research and try to capture it into useful elements, to be able to pass it on either to L200 members engaged in the infrastructuring process or to others interested to initiate L200-like spaces. Thus a part of our ongoing work is to document the project coordination and to devise guidelines useful in infrastructuring.

Reducing the overhead for space management, and making it easy for anyone to contribute, has been a strategic choice that is actually part of an on-going action research process including the development of digital tools. They further facilitate the coordination and collective awareness among diverse activities that take place in a single location. Then the L200 goal is to become an easily replicable prototype of a hybrid urban living lab – showcasing the power of sharing in running successful central spaces in the city, simultaneously reducing their cost, but also multiplying their reach for communication and interaction with the public. Nevertheless, there is a mutual relationship between infrastructuring the common infrastructure and shaping the group or community of practice.

So the infrastructuring process at L200 is generating over time a community of practice, which is a group of people engaged in collective learning. The term was coined by anthropologist Jean Lave and Etienne Wenger (Wenger 1998) to refer initially to learning groups in the context of apprenticeship. Community of practice is a broad concept implying frequent interactions between group members around a shared domain of interest or action like improving their practice, or around learning how to do something. In this process of interaction, the group develops "a shared repertoire of resources: experiences, stories, tools, ways of addressing recurring problems—in short a shared practice" (Wenger-Trayner, 2015).

### **Guidelines for co-creating a hybrid central space as a commons**

There are some successful practices that can be transformed into guidelines, infrastructures, and tools, and others that cannot, by construction. If one asks people that are identified as community builders, place makers, movement leaders, and the like, what is their secret for bringing people together, and how one can learn from their experiences, they often cannot provide a simple answer. It resides within a realm of art, intuitive knowledge and social skills. When one insists, they often answer that candidates for leading commoning processes need to simply like and believe in what they are doing.

Toward infrastructuring a common hybrid neighborhood space, we summarize in this section the beginnings of the L200 project in the form of a set of guidelines for similar initiatives. The narrative presents the evolutionary process that shaped the current state of the L200 common infrastructure. The action moments presented here are not necessarily subsequent as they have been following linear as well as cyclical rhythms. Their presentation below suggests more of a logical hierarchy rather than a chronology.



**Integrating real needs.** One of the main challenges in collective processes is the integration of individual choices into shared decisions. However, this is a very important phase in the co-production of a commons project, and may be attempted first by assembling and integrating needs within other related participatory practices. To facilitate the expression of all choices, the process shall be inclusive and promote active listening (e.g., Sclavi, 2006) and decision making consent or ‘no objections’ (Buck and Villines, 2007) instead of being ambitious toward achieving consensus.

**Defining a vision in a world of possibility.** Formulating a possibility for the future is a critical step in pursuing the materialization of any needs, wishes, dreams or desires. Yet the domain of possibility is subject to perpetual creation, which begins in language, it is slowly formulated until it turns into action, and eventually becomes a way of living. In comparison with the previously described action of gathering and integrating real needs, most important in this case is that there are no constraints. The possibilities are infinite, leaving room for the imagination and creativity.

**Seizing an opportunity.** The moment of integrating real needs and visions (re-)connects with the practical reality by seizing the opportunity to materialize it. Within the constellation of imminent needs, conceptual plans, wishes and desires, practical reality may show that there is a relatively limited collection of suitable options. Although these conditions are referred to in ‘classical economics’ as limited resources with the consequence of inevitable competition, they may be dealt with based on principles of co-operation, solidarity economy and mutual benefit. A necessary condition is, the participatory practices to filter out during reiterative sessions, non-suitable choices for the particular conditions, and certainly to engage a variety of actors who find value both in the outcomes and in the action process as well.

**Formulating a project.** In the process of

structuring a concrete project, when the opportunity appears to materialize the formulated visions, and to fulfill the imminent and more long-term needs of the association, some of its members (the initiators) formulated an adapted project proposal for the L200 space.

**Organizing a plan for action.** The project that was initially formulated in more generic terms is transformed then into a chronology of feasible actions. The potential platforms are checked against reality, and a plan for action is structured, in detail for a short period of time, and more flexible for the long-term, devising clear strategies for the space as an infrastructure, for its governance and the common services for the members’ community built on top.

**Enabling collective leadership.** The difficulty in “infrastructuring” leadership and facilitation lies in the high complexity behind the task. Being truly engaged in observing all the important details that need to be taken into account in a long-term organic participatory process requires a lot of effort and continuous attention that cannot be “designed for”. But it functions certainly in the realm of reflection in action described above. Adding the question of power inequalities that arise through leadership makes it one of the most delicate and critical aspects of commoning and/or participatory design projects. Many details on the daily operation of the space, from how the projector works to the password for the membership management programme, and others based on the daily experience, from how to better introduce the concept of the space to visitors to which arrangements of the space work better for specific types of events, are stored in the mind of the main persons involved. Documenting this seemingly trivial information and subconscious experiences to simple guidelines can enable more people to take responsibility for important tasks and thus decrease the dependence of the space on specific individuals.

**Allowing for temporary use.** A more exploratory framing of the project may be designed, when



testing of various options could take place. A very dynamic and complex project requires a preparatory phase. In this initial phase of L200, a six-months temporary use became critical, due to the experimental and 'cumulative' nature of the project. That means that there was not an already organized group of people who rented a new location, but the collective is being shaped while organizing also a novel use of this hybrid space.

**Simple concept for a complex space.** Complex commoning activities require simple and strict rules that maximize freedom and minimize abuse. L200's identity was defined through a very simple and clear rule. All activities are welcome as soon as they leave the space as they found it, and the space's identity is defined only by its location in the city; all members have to contribute to the cost of the space in a way that is fair and transparent. Documenting all different events and highlighting the diversity of uses both online and offline, proved very helpful, and the fact that passers by always ask, "What is this?" is reassuring that we are succeeding in creating a complex hybrid space that is both attractive and undefined.

**Diversity needs maintenance.** Over time, certain usages get more popular and certain people more engaged in the space, which creates an imbalance of identity and power. To maintain diversity and keep the identity neutral there is a need for maintenance. In practice this could mean that after a defined period of many events of a certain type, members could actively search for other usages or a special offer can be devised to attract other urban "tribes" ... analogy with the gardener ... but the gardener needs also to change over time!

**Different levels of financing.** One of the most challenging decisions in commoning projects is whether and how to finance the required work for their functioning. At L200, we decided to separate the financing of the common infrastructure, which is fairly distributed among all members, and the corresponding work, which is currently 100% voluntary. This strategy proved sustainable for the

first years. In parallel, the establishment of a successful venue facilitates individual fundraising efforts, which compensate for the voluntary work without stressing the management of the space itself.

At the time of the paper's publication, L200 has been temporarily closed due to the Covid-19 crisis. During this period of inactivity and uncertainty, L200 could still be supported by the members of the association, exactly because it is maintained as a common infrastructure due to its use value, rather than as a source of income. After this crisis, however, L200 will depend on the willingness of its members to keep it alive as a space promoting small-scale local exchanges and interactions. Certainly the local, small scale is more compatible with the new lifestyle that will be imposed on humanity by this pandemic, and by the climate change crisis that follows.

## DISCUSSION

One of the valid criticisms for this paper by the reviewers was the introduction of too many ideas and concepts, each of which could be a separate paper. Certainly it is so, as the L200 space -the multifaceted action case in point here- is still at its beginnings within a very dynamic process that unfolds while we are documenting it. We approach the process of design similarly to Schön's understanding, "as a conversation with the materials of situation" (1983, p.103), like a back and forth talking with a particular situation and unique tasks.

Equipped with many years of theoretical work and three-year experience in international transdisciplinary projects, we employ our skills to contribute to the creation and design of this hybrid common space, L200, a hybrid information infrastructure run as a commons. We approach this research case with a stranger attitude, and as reflective practitioners rather than in a dominant top-down note of research projects or public authorities that impose their agendas on community

groups.

Our take on the design process led to forming a community of practice capable to self-manage and self-support the operation and maintenance of L200, which has flourished over almost two years without any external support, but the individual contributions of the members of the association. Nevertheless, co-production and co-design come together with co-learning, as pointed by Light & Seravalli (2019), and this paper is a part of the documentation within this learning process.

So this paper puts together a few, only, pieces of a complex ecosystem arguing in essence that such broad perspectives are needed as much as in depth studies, since they can reveal important relationships, correlations, methodological elements, which can later be elaborated in more detail through more specialized processes.

Our transdisciplinary work and hands-on experience at L200 points to the following conjectures:

- Information infrastructures for local communities can be truly democratic and sustainable when they are conceived and designed as inseparable of neighborhood spaces that act as physical platforms for learning, participation, and decision making, and which are also subject to important design choices.
- Eliciting ideas and formulating community needs that are required as input in participatory design processes tend to be more genuine, when they are expressed through free and non-curated action over long periods of time.
- Building self-organized common spaces requires very simple but strict rules that maximize the freedom of all individuals in appropriating the space, while making sure that none of them can dominate its usage and identity.

As a concluding note, our engagement in the field

has made very clear the importance of numerous small details, some related to the local context, other to the specific people involved, or even to pure chance. This fact is not something new, but its realization is very powerful, especially for a researcher, when it is experienced first-hand.

L200 is designed to be easily replicated: a small space, rented at its market price, in one of the busiest streets of the city, using digital tools that already exist and are freely available, without subsidies. We believe that an interested group of people will not need much more guidance than the above principles, and perhaps a few more, to be able to create their own common space in the center of their city or neighbourhood. Then studying in detail and from different perspectives the process of replication and appropriation of the model in a similar context, e.g., in a different neighbourhood in Zurich, is much more interesting and could lead to deeper knowledge on the role of design than an exhaustive analysis of a single successful case study.

In a way, this paper is part of the learning process giving an opportunity to the researchers to document the current situation and share with the rest of the group their ideas about the overall concept and its evolution.

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## END NOTES

[1] COMPARE (2015), <http://compare-network.net>, MAZI (2016-2019), <http://mazizone.eu>, and netCommons (2016-2019), <http://netcommons.eu>

[2] INURA's main instrument to assemble researchers and activists is an annual conference that is organized in two parts, the first one learning about a city's movements and issues through presentations and field trips, and a similarly intensive one, a retreat, reflecting on the recent experiences in the mirror of other cities, and if necessary supporting local groups, and also dealing with the organization of the INURA itself. See <http://inura.org>

[3] See <http://langstrasse200.ch/about/>, for the history of L200's main concept and key actors.

[4] Interestingly, there is currently no research funding or any other type of external financial support for the development of L200, and thus NetHood's involvement is not tight to any external obligation for reporting, fulfillment of requirements, deadlines, etc.

[5] Two recent issues of the Journal of Peer Production on CITY (Travlou et al, 2018) and ALTERNATIVE INTERNETS (Tréguer et al., 2016) provide a rich collection of articles proposing alternatives to the corporate "smart city" project in both dimensions, the physical and the digital.

[6] A comprehensive collection of successful commoning "patterns" is analyzed in Bollier & Helfrich (2015) and various related projects produce online material. E.g., <https://ecodaplatform.hotglue.me/>, <http://creatingcommons.zhdk.ch/>, <http://designingtheurbancommons.org/details/resources/>, <https://www.ixdm.ch/portfolio/thinking-toys-for-commoning/>.

[7] "[...] this experience of temporarily occupying an in-between territory as well as an in-between non-

identity, can provide us with a glimpse of a spatiality of emancipation. Creating in-between spaces might mean creating spaces of encounter between identities instead of spaces characteristic of specific identities. When Simmel was elaborating on the character of door and bridge as characteristic human artifacts, he was pointing out that 'the human being is the connecting creature who must always separate and cannot connect without separating' (Simmel 1997:69)." (Stavridis, 2016, p.239).

[8] "This act of recognizing a division only to overcome it without, however, aiming to eliminate it, might become emblematic of an attitude that gives to differing identities the ground to negotiate and realize their interdependence. Emancipation may thus be conceived not as the establishing of a new collective identity but rather as the establishing of the means to negotiate between emergent identities. Difference thus is not connected to privilege but to potentiality" (Stavridis 2016, p.239, emphasis added).

[9] Magacin u Kraljevića Marka | MKM, <https://kcmagacin.org/>

[10] Centro Social y Cultural de Gestión Ciudadana, La Casa Invisible, <http://lainvisible.net/>

[11] All currently pre-installed applications of the MAZI toolkit are described here: <https://github.com/mazi-project/guides/wiki/Applications>

[12] Throughout the duration of the MAZI project, to shape a space suitable for transdisciplinarity we dedicated an entire work package, in which we elaborated on elements of an interdisciplinary framework over the whole duration of the project documented step by step in twelve documents, project deliverables that are numbered D3.2-D3.13, and are available online at <http://nethood.org/mazi/deliverables/>.

[13] Like in the concept of "liminal commons" by Varvaroussis & Kallis (2017), "the glue that brings

the actors together is the practical production of the common. A collective identity is neither a precondition nor the purpose of the process and is discouraged when it puts obstacles in the way of common production.” (p.131)

[14] See <http://langstrasse200.ch/pub/werte/> for the latest draft of L200’s values and corresponding rules.

[15] “Community is given to us – or we are given and abandoned to the community: a gift to be renewed and communicated, it is not a work to be done or produced. But it is a task, which is different – an infinite task at the heart of finitude [‘finitude’ meaning here the lack of identity that we share in common]” (Nancy 1991, p.35).

[16] <http://langstrasse200.ch/events/>

[17] <http://r-urban.net/en/projects/agrocite/>

[18] See also the story on L200 in Dulong de Rosnay et al. (2019, p.62-63)

[19] At the beginning of 2020, L200 is a community of more than 150 members, more than 300 newsletter subscribers and an estimated number of more than 1000 visitors last year.

[20] See <https://github.com/mazi-project/guides/wiki> for the current version of the MAZI toolkit.

[21] “Practitioners themselves often reveal a capacity for reflection on their intuitive knowing in the midst of action and sometimes use this capacity to cope with the unique, uncertain, and conflicted situations of practice” (Schön, 1983, p.viii-ix). In reflection in action, researchers and practitioners have the possibility to choose between “different paradigms of practice”, and also “doing and thinking are complementary. Doing extends thinking in the tests, moves, and probes of experimental action, and reflection feeds on doing and its results. Each feeds the other, and each sets boundaries for the other” (Schön, 1983, p.280).

[22] “The stranger will thus not be considered here in the usual sense of the term, as the wanderer who comes today and goes tomorrow, but rather as the man who comes today and stays tomorrow – the potential wanderer, so to speak, who, although he has gone no further, has not quite got over the freedom of coming and going.” (Simmel, 1971, p.143).

[23] As Whyte stated, “Triangulation is the process by which some external stimulus provides a linkage between people and prompts strangers to talk to other strangers as if they knew each other,” which means that “the choice and arrangement of different elements in relation to each other can put the triangulation process in motion (or not)” (online at [pps.org](http://pps.org)).

## REFERENCES

- Antoniadis, P. (2016). Local networks for local interactions: four reasons why and a way forward. First Monday, [S.l.], nov. 2016. ISSN 13960466. Available at: <http://firstmonday.org/ojs/index.php/fm/article/view/7123/5661>
- Antoniadis, P. and Apostol, I. (2014). The right(s) to the hybrid city and the role of DIY networking. Journal of Community Informatics, special issue on Community Informatics and Urban Planning, vol. 10. Available at: <http://ci-journal.net/index.php/ciej/article/view/1092/>
- Antoniadis, P. (2018). The Organic Internet: Building Communications Networks from the Grassroots, Co-Designing Economies in Transition, New York, Palgrave Macmillan. Available at: [https://link.springer.com/chapter/10.1007/978-3-319-66592-4\\_13](https://link.springer.com/chapter/10.1007/978-3-319-66592-4_13)
- Apostol, I., Antoniadis, P., and Klaus P. (2018). Design, progress and evaluation of the Kraftwerk1 pilot (version 3), MAZI Deliverable D2.9; Online at <http://www.mazizone.eu/wp-content/uploads/2018/10/D2.9-Design-progress-and-evaluation-of-the->

## Kraftwerk1-pilot-v3.pdf

Antoniadis, P. and Apostol, I. (2018). DIY networking as a boundary object in interdisciplinary research: vocabulary and methodology (version 3); MAZI Deliverable D3.4; Online at <http://www.mazizone.eu/wp-content/uploads/2018/10/D3.4.pdf>

Apostol, I. et al. (2018) MAZI as an experiment in interdisciplinarity: the outcome of a self-reflection exercise (version 3); MAZI Deliverable D3.13. Online at [http://www.mazizone.eu/wp-content/uploads/2019/02/D3.13\\_Final.pdf](http://www.mazizone.eu/wp-content/uploads/2019/02/D3.13_Final.pdf)

Apostol, I. (2015). Urbanity and the right to difference. studies in History and Theory of Architecture, Volume 3/2015. Available at: <https://sita.uauim.ro/3/a/33/>

Banerjee, T. and Chakravorty, S. (1994). Transfer of Planning Technology and Local Political Economy: A Retrospective Analysis of Calcutta's Planning. Journal of the American Planning Association, 60(1): 71-82.

Bassetti, C., Sciannamblo, M., Lyle, P., Teli, M., De Paoli, S., and De Angeli, A. (2019). Co-designing for common values: creating hybrid spaces to nurture autonomous cooperation. CoDesign, 15(3), 256-271.

Björgvinsson, E., Ehn, P., and Hillgren, P-A. (2012). Agonistic participatory design: Working with marginalised social movements. CoDesign, 8(2-3): 127-144.

Bollier, D. and Helfrich, S. (Eds.). (2015). Patterns of commoning. Levellers Press.

Borch, C. and Kornberger, M. (2016). Urban Commons: Rethinking the City. Routledge.

Botero, A. and Saad-Sulonen, J. (2010). Enhancing citizenship: the role of in-between infrastructures. In Proceedings of the 11th Biennial Participatory Design Conference (pp. 81-90). ACM.

Bowker, G.C. and Star, S.L. (1999). Sorting Things Out: Classification and Its Consequences. MIT Press, London.

Buck, J. and Villines, S. (2007). We the people: Consenting to a deeper democracy. Washington D.C.: Sociocracy. info Press.

Carr, C. and Hesse, M. (2018). Wagering the waterfront? angling the abc & xyz of quayside toronto. Urbanization Unbound. Retrieved from <http://urbanunbound.blogspot.com/2018/08/wagering-g-waterfront-abc-xyz-of-quayside.html>

Commons Network. (2018). URBAN COMMONS SHARED SPACES. Available at: <https://www.commonsnetwork.org/news/shared-spaces-new-paper-on-urban-commons/>

Cozzolino, A. (2018). The commons and the civic and collective urban use: from theory to the praxis of L'Asilo, Napoli. In "Participatory governance in Culture: Exploring Practices, Theories and Policies. Do it Together", 22-24 November, Rijeka (Croatia)

Dellenbaugh M. et al. (2015). Urban Commons. Moving beyond State and Market. Birkhauser: Basel.

Dewey, J. (1933). How We Think: A Restatement of the Relation of Reflective Thinking to the Educative Process. Boston, MA D.C. Heath & Co Publishers.

DiSalvo, C., Lukens, J., Lodato, T., Jenkins, and Kim, T. (2014). Making public things: how hci design can express matters of concern. In: Proceed- ings of the 32nd annual ACM conference on Human factors in computing systems. ACM, pp. 2397-2406.

Doctoroff, D. L. (2016). Reimagining cities from the internet up. Sidewalk Labs. Retrieved from <https://www.sidewalklabs.com/blog/reimagining-cities-from-the-internet-up/>

Dulong de Rosnay, M., Tréguer, F., Antoniadis, P., Apostol, I., Aubrée, V., Burns, A., Michalis, M., Neumann, J., and Roca I Tió, R. (2019).



Telecommunications Reclaimed: A Hands-On Guide to Networking Communities. Internet Society

Ehn, P. (2008). Participation in design things. In: PDC '08: Proceedings of the tenth conference on participatory design, Bloomington, Indiana, New York: ACM Press, pp. 92-101. Friedmann, J. (1987). Planning in the Public Domain: from Knowledge to Action. Princeton NJ: Princeton University Press.

Friedmann, J. (1987). Planning in the Public Domain: from Knowledge to Action. Princeton NJ: Princeton University Press.

Hakken, D., Teli, M. and Andrews, B. (2016). Beyond Capital: Values, Commons, Computing, and the Search for a Viable Future. Routledge.

Jacobs, J. 1992 [1961]. The Death and Life of Great American Cities. NY: VintageBooks, a Division of Random House, Inc.

Karasti, H. (2014). Infrastructuring in participatory design. In Proceedings of the 13th Participatory Design Conference: Research Papers-Volume 1 (pp. 141-150). ACM.

Kioupkiolis, A. (2019). The Common and Counter-Hegemonic Politics: Re-Thinking Social Change. Edinburgh University Press.

Korn, M. and Volda, A. (2015). Creating Friction: Infrastructuring Civic Engagement in Everyday Life. In AA 2015: Proceedings of the Fifth Decennial Aarhus Conference on Critical Alternatives. Aarhus: Aarhus University Press, pp. 145-156.

Kostakis, V., Niaros, V., Dafermos, G., and Bauwens, M. (2015). "Design global, manufacture local: Exploring the contours of an emerging productive model," Futures, volume 73, pp. 126-135.

Lefebvre, H. 1996 [1968]. "The Right to the City. and Introduction: Lost in Transposition." In H. Lefebvre, Writings on Cities (eds. E. Kofman and E. Lebas), pp. 1-19 and pp. 63-184. Cambridge, MA: Blackwell.

Lefebvre, H. 1991 [1974]. The Production of Space. Oxford, UK: Blackwell Publishers.

Light, A. and Seravalli, A. (2019). The breakdown of the municipality as caring platform: lessons for co-design and co-learning in the age of platform capitalism. CoDesign, 15(3), 192-211.

Lyle, P., Sciannamblo, M., and Teli, M. (2018). Fostering Commonfare. Infrastructuring Autonomous Social Collaboration. CHI 2018.

Mosconi, G., Korn, M., Reuter, C., Tolmie, P., Teli, M., and Pipek, V. (2017). From facebook to the neighbourhood: Infrastructuring of hybrid community engagement. Computer Supported Cooperative Work (CSCW), 26(4-6), 959-1003.

Nancy, J.-L. (1991). The Inoperative Community. P. Connor, (ed.); (Trans. P. Connor, W. Garbus, M. Holland, S. Sawhney). Minneapolis: Univ of Minnesota Press.

Ostrom, E. (1990). Governing the Commons: The Evolution of Institutions for Collective Action. Cambridge University Press.

Petrescu, D., Petcou, C., and Baibarac, C. (2016). Co-producing commons-based resilience: lessons from R-Urban, Building Research & Information, 44(7):717-736.

Petrie, H.G. (1976). Do You See What I See? The Epistemology of Interdisciplinary Inquiry, Educational Researcher, 5(2): 9-15.

Rittel, H. (1972). On the planning crisis: Systems analysis of the first and second generations. Bedriftskonomen, 8.

Rittel, H. and Webber, M. (1973). Dilemmas in a General Theory of Planning. Policy Sciences 4: 155-169.

Ramos, J.M. (editor). (2016). The City as Commons: A Policy Reader. Commons Transition Coalition, Melbourne, Australia.

Schmid, C. (2006). Theory: The Right to the City. In Switzerland: An Urban Portrait, R. Diener & colleagues (eds), 167-173. Basel: Birkhäuser.

Schön, Donald A. (1983). *The Reflective Practitioner: How Professionals Think in Action*, New York: Basic Books.

Schön, Donald A. (1987). *Educating the reflective practitioner*. San Francisco: Jossey-Bass Publishers.

Schuler, D. (1996). *New Community Networks: Wired for Change*. Reading, Mass.: Addison-Wesley.

Sclavi, M. (2006). The Place of Creative Conflict Management in Intercultural Communications. Conference on Deliberative Democracy: New Directions in Public Policy Dispute Resolution, Cambridge MA June 28-30.

Simmel, G. 1997 [1909]. "Bridge and Door". in N. Leach (ed.). *Rethinking Architecture*. London: Routledge.

Simmel, G. 1971 [1908]. "The Stranger". In D. N. Levine (ed.), *On Individuality and Social Forms* (pp. 324-340). Chicago: University of Chicago Press.

Sobral, L. (2018). *Doing it together: cooperation tools for the city co-governance*. A Cidade Press.

Star, S. L. (1990). The structure of ill-structured solutions: Boundary objects and heterogeneous distributed problem solving. In L. Gasser & M. N. Huhns (Eds.), *Distributed artificial intelligence* (Vol. 2, pp. 37-54). San Mateo, CA: Morgan Kaufmann.

Star, S.L. and Ruhleder, K. (1996). Steps toward an ecology of infrastructure: design and access for large information spaces. *Information Systems Research*, 7 (1), 111-134.

Star, S. L. and Bowker, G. C. (2002). How to infrastructure? In L. A. Lievrouw & S. L. Livingstone (Eds.), *The handbook of new media. Social shaping and consequences of ICTs* (pp. 151-162). London: Sage Publications.

Star, S. L. and Griesemer, J. R. (1989). Institutional ecology, 'translations' and boundary objects: Amateurs and professionals in Berkeley's Museum of Vertebrate Zoology, 1907-39. *Social Studies of Science*, 19:387-420.

Stavridis, S. (2016). *Common Space: The City as Commons*. London : Zed Books

Steen, K. and van Bueren, E. (2017). The defining characteristics of urban living labs. *Technology Innovation Management Review*, 7(7): 21-33.

Strauss, A. (1978). A social world perspective. In N. K. Denzin (Ed.), *Studies in symbolic interaction: An annual compilation of research*, 1:119-128). Greenwich, CT: JAI Press.

Teli, M., Bordin, S., Menéndez Blanco, M., Orabona, G., and De Angeli, A. (2015). Public design of digital commons in urban places: A case study. *International Journal of Human-Computer Studies*, 81:17-30.

Tomašević, T. (2018). Rojc Community Centre, Croatia. In Tomašević, T., Horvat, V., Midžić, A., Dragšić, I. and Dakić, M., *Commons in South East Europe: Case of Croatia, Bosnia & Herzegovina and Macedonia*. Institute for Political Ecology, pp. 86-94.

Travlou, P., Antoniadis, P., and Anastasopoulos, N. (2018). Peer Production in the Hybrid City: Editorial Notes for the JoPP Issue on CITY. *Journal of Peer Production*, 01/2018. Available at: <http://peerproduction.net/issues/issue-11-city/editorial-notes/>

Tréguer, F., Antoniadis, P., and Söderberg, J. (2016). Alt. vs. Ctrl.: Editorial notes for the JoPP issue on Alternative Internets. *Journal of Peer Production*. Available at: <http://peerproduction.net/issues/issue-9-alternative-internets/editorial-notes/>

Varvaroussis, A. and Kallis, G. (2017). Commoning against the crisis. In Castells, M. et al, *Another*

Economy is Possible: Culture and Economy in a Time of Crisis. Polity Press.

Wenger, E. (1998). Communities of Practice: Learning, Meaning, and Identity. Cambridge University Press: Cambridge.

Wenger-Trayner, E. and B. (2015). Communities of practice: A brief introduction. Available at: <http://wenger-trayner.com/introduction-to-communities-of-practice>

Whyte, W. H. (1980). The Social Life of Small Urban Spaces. Washington DC, The Conservation Foundation.

Wylie, B. (2018). Searching for the smart city's democratic future. CIGI. Retrieved from <https://www.cigionline.org/articles/searching-smart-citys-democratic-future>

Young, I.M. (1990). Justice and the Politics of Difference. Princeton: Princeton University Press.

Žuvela, A. (2018). Pogon – Zagreb Centre for Independent Culture and Youth in Zagreb. In Kultura Nova Foundation. Do it Together. Practices and Tendencies of Participatory Governance in Culture in the Republic of Croatia. Available at: [http://participatory-governance-in-culture.net/uploads/biljeske\\_EN\\_web.pdf](http://participatory-governance-in-culture.net/uploads/biljeske_EN_web.pdf)